ENVIRONMENTAL ASSESSMENT DECISION NOTICE
for the
Mount Haggin Habitat Restoration Project

Montana Fish, Wildlife & Parks
Region 3, Bozeman
March 2009

Preface

The purpose of the acquisition of the Mount Haggin WMA by FWP in 1976 was to provide winter range for elk, mule deer, and moose, in addition to providing public outdoor recreational opportunities. Over the years, there has been a decrease in the number of acres dominated by aspen and shrub/grassland communities on the WMA due to forest successional processes and expansion of Douglas fir and lodgepole pine into open areas due to past grazing practices and fire suppression policies. In addition, large, dense stands of even-aged lodgepole pine that occur across the WMA provide a limited amount of forage and structural complexity that would better benefit wildlife and in recent years have become heavily impacted by mountain pine beetle infestations that are occurring throughout SW Montana.

Both aspen and antelope bitterbrush are important sources of food and cover for many wildlife species, including elk, mule deer, moose, black bear, mountain grouse, numerous songbird species, and small mammals. In some places on Mount Haggin WMA, aspen stands are declining in size and health due to forest succession as conifers replace aspen as the dominant over-story tree. Since many wildlife species rely on aspen communities for food and cover, loss of aspen across the WMA would have a negative impact on local populations of both game and nongame species. At the forest-shrub/grassland interface of Mount Haggin WMA, bitterbrush communities are being impacted by the expansion of Douglas fir along the forest edge. Bitterbrush is an important food source for wintering mule deer and elk. The bitterbrush plant is highly intolerant of shade and depends on an open over-story to thrive. Where Douglas fir trees overtop individual shrubs and shade out direct sunlight, the plant's vigor and ability to regenerate are greatly reduced and the plant eventually dies.

While large, dense stands of even-aged lodgepole pine on Mount Haggin WMA provide cover to wildlife, the overall lack of structural diversity makes them less attractive to wildlife and more prone to mountain pine beetle infestations, which have been occurring throughout a large area of southwest Montana over the past several years. The result is now large tracts of dead or dying lodgepole pine that with time could contribute to heavy ground fuel build-up and create large piles of impassable debris that will impede big game use and movement patterns on the winter

range. While FWP recognizes that dead trees can serve an important ecological function by providing habitat to cavity-nesting birds and contributing nutrients to the soil, the negative impacts of large tracts of dead trees such as is occurring on Mount Haggin WMA have the potential to outweigh the benefits.

Proposed Action

Montana Fish, Wildlife & Parks (FWP) is proposing to approve the Mount Haggin WMA Habitat Restoration project. Specifically, the project proposes to remove conifers from up to 100 acres of selected bitterbrush stands and 150 acres of selected aspen stands. In addition, the project also proposes to remove beetle-killed lodgepole pine from approximately 700 acres of conifer forest in the Gregson Creek area of the WMA. The intended collective benefit of this proposed project is to improve overall habitat conditions across big game winter range of the WMA.

Public Process and Comments

FWP is required by the Montana Environmental Policy Act (MEPA) to assess potential impacts of a proposed action to the human and physical environment. In compliance with MEPA, an Environmental Assessment (EA) was completed for the proposed project by FWP and released for public comment on January 28, 2009.

Public comments on the proposed action were taken for 30 days (through February 27, 2009). Legal notices were printed in the *Montana Standard* (Butte) and the *Anaconda Leader*. The EA was also posted on the FWP webpage: http://fwp.mt.gov//publicnotices/.

Seven individuals submitted comments; two of those were on behalf of groups, one was on behalf of a local business, and the rest were representing themselves only. Of the seven respondents, all were in support of the proposed action but all seven expressed at least one concern related to the project.

The supporters of the Mount Haggin Habitat Restoration project cited the following reasons: 1) the need to improve habitat for wildlife, which will ultimately lead to improved recreational opportunity, 2) the need to improve forest health by removing beetle-killed lodgepole pine, and 3) the need to reduce forest fuels by removing beetle-killed lodgepole pine.

Below is a summary of the comments and questions received and FWP responses to them:

1) Use of the term "encroachment"

   Two comments were received under this category. One respondent felt that the term "encroachment" should replace the term "forest succession", as used in Section 1.2 of the Draft EA, for consistency. The other respondent felt that the term is unscientific and denotes something that "doesn't belong", and suggested that the term be replaced with "second growth conifers".

FWP response: FWP agrees that terms should be used consistently and appropriately in this and all scientific documents and that the term "encroachment" may not be the best word choice for what is being expressed in this Draft EA. Therefore, "encroachment" has been replaced with "expansion" in the Final EA.

2) Include the Army Corps of Engineers in the list of Overlapping Jurisdiction

One question was received whether the Army Corps of Engineers (COE) should be included in the list of Overlapping Jurisdiction (Section 1.5)
FWP response: A COE 404 permit is required only for federally listed navigable waters. In Montana, those are portions of the Yellowstone, Missouri, and Kootenai Rivers. The creeks involved in this project, Gregson and Whitepine Creeks, do not fall into this category and thus the COE does not need to be included in the list of Overlapping Jurisdiction. For this project, a 124 permit issued by FWP is required. At the time this permit is applied for, an assessment will be made as to whether a 310 permit issued by Department of Natural Resource Conservation or a 318 permit issued by Department of Environmental Quality are also needed. All applicable permits will be obtained before this project commences.

3) Proposed timber cut as a means of reducing fuel load

Two comments were received concerning the reduction of fuel loads as one of the benefits of this project. One respondent felt that using language such as "threat of catastrophic wildfire" was a fear tactic that should not be used by FWP and that the attempt to control mountain pine beetle infestations and maintain healthy forests to benefit wildlife should be enough justification for logging certain areas of the WMA. Another respondent felt that while the reduction in fuel loading as suggested in this project is laudable, it would only be beneficial in more mild fire seasons and not prove effective as a firebreak in more extreme fire years.
FWP response: It is not FWP's intent to use fear tactics to justify a management action on a WMA. Therefore, to this end, language has been edited in the EA to avoid this connotation. In addition, FWP acknowledges that the amount of tree removal proposed in this project will not be effective against a large-scale fire. However, the intent of this project is not to create a complete firebreak along the borders of the WMA but rather to remove some of the dead and dying lodgepole pine that would contribute not only to forest fuels but also could eventually create large, impassable piles that will impede wildlife use and movement in this area.

4) Omission of antelope and other species from the list of wildlife using Mount Haggin WMA (Section 3.2.5)

Two comments were received concerning the omission of antelope from the list of wildlife using Mount Haggin WMA in Section 3.2.5. One respondent also included beaver, moose, black bear, and white-tailed deer as species omitted from the list.
FWP response: Unintentionally, antelope, along with beaver and white-tailed deer, had not been listed in the Draft EA. Since these species do, in fact, use portions of the WMA,

the Final EA has been updated to include them. Moose and black bear were mentioned in the Draft EA.

5) Concern for steep decline in big game populations in Hunting District 341, including the project area

Three comments were received under this category. One respondent questioned if FWP is looking at other factors besides forage availability that might be contributing to the decline in big game populations. One respondent questioned what effects this project might have on local big game populations. One respondent commented on the fact that low mule deer densities currently exist in this area.
FWP response: FWP biologists are looking into all factors that might help to shed light on the decline in big game populations that have been occurring in HD 341 over the past 10-15 years. It is the intent of FWP that this project will improve habitat conditions on the WMA and therefore have a positive effect on local big game populations. FWP will continue to conduct annual aerial surveys in order to monitor big game populations in HD 341. Other than the habitat restoration work proposed in this project for the benefit of wildlife in general and big game species in particular, other factors affecting game management in this area are beyond the scope of this project and therefore will not be addressed here.

6) Use of straw bales to control erosion on steep sloes

One respondent suggested that FWP use straw waddles in place of straw bales. Reasoning for this is that waddles are less expensive, easier to install and maintain, and are usually made of rice straw which eliminates the worries for weed infestation. In addition, waddles are biodegradable and when left in place continue to give protection against slope erosion.
FWP response: FWP will follow this suggestion, for the reasons stated above. Language in the Final EA has been changed to reflect this.

7) Suggested rewording for Section 4.1.5 – Wildlife (Predicted Consequences of Alternative B)

One respondent suggested that in Section 4.1.5, FWP consider rewording the sentence "The continued decline of important winter forage for ungulates (i.e. aspen and bitterbrush) within the WMA may influence elk, deer, and moose to move elsewhere, potentially onto nearby private lands, when forage at the WMA is exhausted". The respondent felt that this gives the impression that big game will eat all the forage on the WMA until there is nothing left.
FWP response: FWP agrees with the respondent's suggestion and has changed the language in the Final EA to reflect this.

8) Concern for noxious weed establishment

Two comments were received under this category. One respondent expressed concern for the potential for the spread of noxious weeds where road construction to accommodate the project will occur. One respondent expressed support for the project's proposal to reseed any disturbed areas with native grasses in order to prevent the spread of weeds and further limit forage for wildlife.
FWP response: As expressed in the project proposal, FWP will adhere to all guidelines and recommendations for managing noxious weeds in accordance with the FWP Integrated Noxious Weed Management Plan. This includes: power washing of any vehicle or equipment that will be driven off-road prior to arrival on the property; reseeding areas disturbed as a result of this project with a native grass/forb mix; and mechanically, biologically, and/or chemically treating the treatment areas for weed control for up to five years after completion of this project.

9) Concern for the decline in the price of timber

Two comments were received concerning the recent decline in the price of timber and whether timber receipts will cover the costs of the project, as proposed, or if FWP would have to pay to implement this project.
FWP response: The costs and income of the project as stated in the Draft EA were based on July 2008 values. As originally designed, receipts generated from the removal of merchantable timber in this project would cover the costs of other aspects of the project, such as the hand-removal of Douglas fir from bitterbrush. In recent months, there has been a significant drop in the value of timber and the value continues to drop. At this point, it is not known whether timber receipts will fully cover the project as proposed as this will depend on the value of timber at the time bids are taken. However, FWP has the flexibility to adjust the scope of this project so that at the very least, costs equal income and this project does not require additional funds from FWP operations budget to implement.

10) Concern for use of German Gulch Road to haul timber

One comment was received concerning the use of German Gulch Road by logging trucks in the event that FWP does not gain permission to use the privately owned Beal Mine Haul Road adjacent to the WMA to haul logs. The respondent wanted assurance that in this event, FWP would be responsible for returning that portion of the German Gulch Road as it passes through private property adjacent to the WMA to conditions that existed prior to commencement of the project.
FWP response: FWP feels this is a reasonable request and is willing to grant those assurances in the event that logging trucks will need to use the German Gulch Road for access to and from the WMA.

11) Loss of security cover to big game

Two comments were received under this category. One respondent recommended that all new roads through elk habitat be carefully evaluated. One respondent was concerned that

a large clear-cut area would greatly reduce elk and deer security cover, making them more vulnerable during hunting season.
FWP response: FWP recognizes that any time a new road is created or an existing road is improved, the potential exists for increased human use of that area. In the case of this project, the placement of new roads and the reopening of old roads as proposed occur in an area of Mount Haggin WMA that has a travel restriction already in place that prohibits non-authorized motorized travel into the area. In addition, the entire portion of the WMA west of the Continental Divide is closed to all motorized traffic Dec 2nd – May 1st for wintering big game security. The intent of this project is to open existing and new logging roads only for the duration of the project and only to authorized travel. New roads will be constructed to minimum standards only. All roads will be closed to unauthorized motorized traffic after the project is completed. FWP feels that these measures will minimize impacts to elk in this area.

FWP agrees that large clear-cut areas could reduce deer and elk security cover, especially during hunting season. While the combined acreage of the adjacent Gregson North, South, and Excaliner treatment areas is relatively large (approximately 625 acres), the acreage denotes the area where the forest health prescription will be applied and not the number of acres that will be cut. Within this area, lodgepole pine stands are interspersed with Douglas fir, alder thickets, willow, and aspen stands on a landscape of broken topography. The prescription calls for removal of all lodgepole pine while Douglas fir and all deciduous trees will remain. Approximately two-thirds of the combined acreage of these three cutting units is comprised of lodgepole pine. FWP will contract with a licensed forester to administer the timber removal portion of the project. The forester will work closely with the local wildlife biologist to make daily on-the-ground decisions as to how to tailor the harvest to best meet the objectives of this project, all of which involve benefits to wildlife.

12) Concern for details of timber cuts

Six comments were received under this general category. Comments were subcategorized into the following:

A. Concern for the size and shape of cutting units and the tree species to be removed

Four respondents felt that the size of the Gregson cutting units was too large, especially if it were all to be clear-cut. Three respondents recommended that rather than one large clear-cut, they suggest smaller cutting units not to exceed 40 acres that are irregular in shape and be designed to appear as natural openings in the forest. Three respondents suggested that islands of trees be left standing within cutting units, and breaks of trees be left between cutting units to create a mosaic pattern on the landscape. One respondent does not want to see any Douglas fir removed from the Gregson cutting areas.
FWP response: As explained in the FWP response to Comment 11, the entire acreage of the Gregson cutting units will not be clear-cut, only stands of lodgepole pine will be removed. The Draft EA lists specific criteria for timber removal, such as avoiding thinning along forest opening edges, leaving sufficient cover adjacent to and between

units, retaining Douglas fir and deciduous tree species, retaining forest cover adjacent to benches and finger ridges for thermal and bedding cover, and that cutting units will be placed to enhance cover types important for elk and other big game, such as aspen stands and willow communities. The Butte Area wildlife biologist will work cooperatively with a licensed forester contracted by FWP to develop final plans and specifications for the proposed project in accordance with these and other criteria listed in the Final EA. Reducing individual cutting units to smaller acreages is an option.

B. Concern for the timing of logging

One respondent recommended that logging not occur in areas when elk would normally be using them.
FWP response: Since the area proposed to be logged is located primarily on winter range and logging is anticipated to occur during the summer months, FWP feels this concern has been adequately addressed in the Final EA.

C. Concern for logging along road edges and in drainage crossings

One respondent recommended that trees should not be removed along roads and that no logging should occur in migration corridors between drainages where elk regularly travel.
FWP response: Since this project is to occur in an area closed to all unauthorized motorized travel, FWP feels the need to maintain security cover along roads is not as necessary here as it would be in areas of motorized access. Additionally, since this project is contained within a single drainage and there are no other proposed cutting units in adjacent drainages, elk migration routes between drainages do not apply here. Most of the logging prescriptions involving roads are directed at standing, dead trees which will end up on the ground sooner than later.

13) Slash removal

Three comments were received concerning removal of slash generated from cutting lodgepole pine. One respondent does not want slash left on the hillside in areas where the excaliner method of timber extraction is being proposed but rather wants to see it piled and burned. One respondent incorrectly understood the project proposal to read that all slash from lodgepole pine harvest will be scattered across the cutting area and suggested that it be piled and burned instead. One respondent recommended that all slash be piled and burned, and that no slash should remain higher than 1.5 feet.
FWP response: As stated in the Draft EA, FWP intends to remove slash generated from the harvest of lodgepole pine in the Conifer Forest Health treatment areas by broadcast burning rather than pile and burn. Broadcast burning better promotes vegetative growth of grasses and forbs than does the pile and burn method. This is in accordance with findings from the Montana Cooperative Elk Logging Study (Lyon et al. 1985). In the aspen treatment areas, slash will be piled and burned since this form of slash removal is more beneficial to promote aspen suckering. In the bitterbrush treatment areas, slash will be lopped and scattered to provide some mechanical protection for bitterbrush seedlings.

Given these slash treatments, slash piles across the project area are not expected to exceed 1.5 feet in height.

In steep slope areas, trees will be cut with a feller-buncher then hauled to landings by an excaliner. Approximately 75% of the slash will occur at the landing where trees will be processed. The remaining slash resulting for cutting and hauling trees from the hillside will remain in place for nutrient cycling.

14) Fisheries in Gregson Creek

Two comments were received under this category. Both respondents disagreed with the statement made on page 11 of the Draft EA, Section 3.2.3 – Water & Fisheries, that Gregson Creek is considered fishless. One respondent recommended that the harvest plan employ best management practices to prevent sediment flows to Gregson Creek, including at least 100-foot buffers on both sides of the creek. One respondent believes that the FWP fisheries biologist should check all waterways on Mount Haggin WMA for fish status information.
FWP response: Although FWP fisheries biologists consider the upper reaches of Gregson Creek to be fishless due to the elevation and steep gradient of the creek, the project will treat both Gregson and Whitepine Creeks as if they contain fish populations. In the Draft EA, it is stated that new roads will be constructed in strict accordance with Water Quality Best Management Practices for Montana Forests (Logan 2001) and existing logging roads that are to be used for this project and that have been built prior to the 1991 Streamside Management Act will be brought into compliance. While it was not explicitly stated in the Draft EA that best management practices be applied when logging to prevent sediment flows into waterways, it is FWP's full intent to employ such practices in this and all projects. Language in the Final EA has been edited to clarify this intent.

While it is the intent of the local FWP fisheries biologist to survey all drainages on Mount Haggin WMA for fisheries status, such an action is beyond the scope of this EA.

15) Use of funds generated by this project

One comment was received regarding how funds generated from timber receipts from this project should be used. The respondent suggested that funds received from this project, along with other unspecified funds, be applied to remediation of clear-cut tracts from the 1970's and 1980's on what is now the Mount Haggin WMA. Specifically, use of funds would go toward thinning to create more diverse, healthier forest and counteract the residual effects of those past logging practices.
FWP response: At this point it is unknown what extra funds, if any, will be generated from timber receipts from this project. Any funds generated will first be applied to covering the costs of this project. Any funds remaining must then be placed in FWP's Real Property Trust, as mandated by statute.

16) Inadequate description of all vegetative communities important for wildlife on Mount Haggin WMA

One comment was received under this category. The respondent pointed out that no reference to big sagebrush was made in the Draft EA.
FWP response: As mentioned in the Draft EA, because of the focus of this project, only those vegetative community types affected by the proposed project were discussed in detail (i.e. conifer forest, bitterbrush, and aspen types). The big sagebrush community type was not one of those affected by this project.

17) Failure to mention rest-rotation grazing on Mount Haggin WMA

One comment was received under this category. The respondent points out that FWP has employed a rest-rotation grazing plan on the WMA since 1984 and that this has been very successful for improving vegetative conditions for both wildlife and fisheries. The respondent contends that since this plan is a long-established part of the management of Mount Haggin WMA, that it should be mentioned in the Draft EA.
FWP response: While FWP agrees with the respondent that the rest-rotation grazing plan on Mount Haggin WMA has been and continues to be an integral and effective component to management of the WMA, the area covered in this project proposal does not include any grazing system and therefore no mention of the Mount Haggin grazing plan has been made in the Final EA.

18) Allow free firewood cutting on the WMA, including commercial cutting

One comment was received under this category. The respondent suggested that FWP allow free firewood cutting of dead trees, including commercial cutting.
FWP response: FWP's policy regarding the gathering of firewood on a WMA is limited to on-site personal use of dead and downed timber only, such as for cooking fires while camped on the WMA. However, firewood cutting for off-site personal use may be allowed at the invitation of FWP, if it is deemed beneficial to the management of the WMA for wildlife. This also applies to commercial timber harvesting, according to FWP regulation (12.14.110(1) ARM).
Because of the large amount of timber to be removed and the intent to have timber receipts cover the additional costs of this project, FWP chooses to use commercial logging for this project.

19) Consider burning as an alternative to logging

One comment was received under this category. The respondent suggested that burning clumps of dead trees can be effective when there is snow on the ground and elk are not in the area, and that burning eliminates the need to build new roads.
FWP response: Because of the acreage proposed for timber removal in this project, FWP does not feel burning is a safe or practical alternative to logging. Burning will not generate funds to cover costs of the project. Additionally, burning and the activities associated with burning on winter range during winter and spring conditions will displace wintering wildlife.

20) More consideration given to moose and moose habitat

One comment was received under this category. The respondent recommends that moose and moose habitat needs more consideration in this proposal.
FWP response: A brief discussion on moose was offered in the Draft EA. It is unclear what further information the respondent would like to see mentioned. The proposed actions in the Draft EA, particularly those involving aspen and conifer forests, are expected to benefit moose in this portion of the WMA. In addition to the habitat improvement being proposed for this area, FWP has initiated a moose-habitat interaction study on the east side of the Continental Divide on Mount Haggin WMA that is in its third year of a 5-year study plan.

21) Monitoring for effectiveness of the proposed project

One comment was received under this category. The respondent recommended that pre-evaluation vegetative study plots, including photo plots, should be established before treatment occurs and re-read and photographed after treatment.
FWP response: During July 2008, FWP biologists established permanent vegetation study plots, including fixed photo points, in 4 of the 5 bitterbrush treatment areas. Vegetation will be measured every 5 years and photos will be taken annually. Fixed photo points will be established for each of the aspen treatment areas and the forest health cutting units as well. Initial photos will be taken prior to treatment, then annually thereafter. In addition, to monitor the effects of the lodgepole pine removal from the conifer forest in order to improve forest health, FWP will monitor winter use of the logged areas by elk, mule deer, and moose during annual winter aerial surveys of the winter range. Furthermore, use of the logged areas by big game, small mammals, and birds will be monitored from the ground, using the logging roads as transects. The transect will be monitored at least once during the winter and once during the summer for at least 5 years post treatment. Scat piles and tracks intersecting the transect will be identified and counted. Birds detected along the transect will also be identified and counted.

Literature Cited

Logan, R. 2001. Water Quality BMPs – Best Management Practices for Montana Forests. EB158, MSU Extension Forestry, Missoula, MT.

Lyon, L.J., T.N. Lonner, J.P. Weigand, C.L. Marcum, W.D. Edge, J.D. Jones, D.W McCleerey, and L.L. Hicks. 1985. Coordinating elk and timber management. Final report of the Montana cooperative elk-logging study 1970-1985. Montana Fish, Wildlife, & Parks, Bozeman.

Final Environmental Assessment

Slight modifications to the Draft Environmental Assessment have been made based on public comment. The Draft Environmental Assessment as modified, together with this Decision Notice, will serve as the final environmental review for this proposal.

Decision

Based on the Environmental Assessment and public comment, it is my decision to approve the proposed action for implementation of the Mount Haggin WMA Habitat Restoration project.

I find there to be no significant impacts on the human and physical environments associated with this project. Therefore, I conclude that the Environmental Assessment is the appropriate level of analysis, and that an Environmental Impact Statement is not required.

_____ _____

Patrick J. Flowers Date
Region 3 Supervisor
Montana Fish, Wildlife & Parks